

toward a new prosperity: policy options addressing our competitive imperatives

Chapter 4 identified six “competitive imperatives” – policy areas we must address if we hope to strengthen and secure the Commonwealth’s economic competitiveness in the new century. That chapter also outlined “desired outcomes” – the goals of our policy options. The following section offers a range of options that can help Massachusetts address these competitive imperatives and achieve our desired outcomes.

These policy options were gathered at regional outreach meetings and from government officials, researchers, and private individuals active in the economic development community. The list is far from exhaustive and includes initiatives that range widely in terms of their cost and ease of implementation. Given the Commonwealth’s current strained fiscal health, less costly options can be prioritized and implemented quickly. As our fiscal condition improves, the Commonwealth should consider implementing options requiring a more substantial commitment of human and financial resources.

These options are not the recommendations of the Department of Economic Development or the University of Massachusetts. We offer these options as the beginning of the discussion, not the end. We hope they generate not just thought, but action. Our purpose is to help decision-makers around the Commonwealth create economic development programs that can enhance the State’s long-term economic competitiveness. Policymakers can also use our proposals as a point of departure for developing other policies to address these competitive imperatives.

We include brief overviews of each competitive imperative and its related desired outcomes. We then offer these policy options with sufficient detail to inform thought and motivate action. Finally, we propose success measures to help track progress toward attaining our desired outcomes. Part III thus defines three basic components for designing and implementing an economic development strategy:

- **The ends** (competitive imperatives and desired outcomes)
- **The means** (policy options), and
- **The monitoring tools** (success measures).

The chapters in **Part II/Regional Profiles** also list the economic development policy priorities for each of our seven regions, with references to relevant pages in this section.

Improve the Business Climate to Support All Industry Clusters

As described in Chapter 2, the competitive success of six broadly defined export-oriented clusters largely determines the growth and prosperity of the Commonwealth’s economy. By exporting goods and services to other states or nations, these industry clusters attract capital, employ workers in jobs that generally pay high wages, and generate demand for local supplier industries and industries that provide goods and services to their workers.

The same economic dynamics are seen at the regional and sub-regional level. A healthy export sector is the key to growth and prosperity. As described in Part II, examples of regional export clusters include distribution in the Tri-City Brockton-Taunton-Attleboro Area of Southeastern Massachusetts, the defense-oriented metalworking cluster in the Pioneer Valley, and the Cape and Islands tourism cluster, with its large in-State clientele. Professor Michael Porter's work on "the competitive advantage of the inner city" can provide a similar program for the economic development for our depressed urban areas.¹

The Commonwealth needs a systematic approach for developing export-oriented clusters at the State, regional, and sub-regional levels. The Commonwealth has helped to create various successful industry commissions and councils over the years. But no agency is responsible for leading a systematic effort to develop such clusters in a broader sense. Nor do we have any mechanism in place to focus existing economic development efforts on cluster development or to coordinate such efforts across regions.

Desired Outcomes

As outlined in Chapter 4, the Commonwealth will have reached its goal of supporting all export-oriented clusters when it achieves the following desired outcomes:

- **Strong export industry clusters throughout Massachusetts.** The Commonwealth, as well as its regions and sub-regions have vibrant, well-functioning export-oriented clusters that are appropriately networked and linked to the public and non-profit resources necessary for success.
- **Firms in our export industry clusters continually innovate to meet high-value customer needs most effectively.** To compete in an increasingly fast-paced and highly competitive global marketplace, firms must continually innovate and leverage new technologies to better serve the needs of their customers. This is especially important in our export-oriented clusters, for firms rely on each other as suppliers and customers; and their collective success is the critical factor in our overall economic performance.

What Government Can Do

In order to address these desired outcomes, we offer a set of policy options. These policy options are not the recommendations of the authors of this study. Rather, they offer a range of possible approaches to assist key stakeholders develop future policies and programs that support economic growth.

Desired outcome: Strong export industry clusters throughout Massachusetts

► Convene a Governor's Council on Competitiveness.

This Council would include private-sector economic advisors, members of seven collaborating regional councils, key administrative officials, and legislative leaders. It will give the Governor and the legislature access to key business concerns throughout the Commonwealth. The Council would explore the contributions State government could make on issues such as cluster development, firm upgrading, and beneficial incentives to business. Council members can also serve as ambassadors to firms considering locating in the Commonwealth, in support of existing programs.

► **Organize a State-level office to assist the Commonwealth's export industry clusters.** State government plays a crucial, yet secondary role in cluster development. It can contribute education and training services, needed infrastructure, links to research facilities, and economic analysis mapping the growth and vitality of our clusters. State government can also use its convening power to establish and promote communication among each cluster's private, public, and non-profit participants. The Commonwealth needs to organize and deliver its cluster development services in a more coherent and prioritized fashion.

► **Assist regions to develop export industry clusters.** All regions of the Commonwealth need strong export clusters to drive economic growth. However, cluster development requires planning and long-term commitments that exceed the resources available at the county or regional level. The Commonwealth can provide the resources and expertise to identify and develop export-oriented clusters at the regional level.

► **Implement an *enhanced* Economic Development Incentive Program (EDIP) to focus on cluster development in economically distressed areas.** The current EDIP has successfully promoted growth in economically targeted areas, helping to create 48,000 new jobs and to retain 80,000 jobs in the Commonwealth. Today, Massachusetts hosts forty-two Economic Target Areas (ETAs), 165 qualifying municipalities and 408 Economic Opportunity Areas (EOAs) or designated sites.² The business incentives provided under these programs encourage firms to locate or expand in these critical areas.

¹ See the Initiative for a Competitive Inner City web site, http://www.icic.org/about/info_and_prospectus.html

² An Economic Target Area (ETA) is defined as three or more contiguous census tracts in one or more municipalities, meeting one of nine statutory criteria of economic need. ETAs are located throughout the Commonwealth. An Economic Opportunity Area (EOA) is an area or several areas within a designated ETA of particular need and a priority for economic development. These areas are selected by the individual communities and must meet one of four criteria for designation. For more information, visit the Massachusetts Department of Economic Development's web site, at <http://www.Mass.Gov/econ/showpage.asp?file=regional/economictargetareas.htm>.

The Commonwealth should help identify the competitive advantages of these distressed areas and help develop vibrant export-oriented clusters that leverage these advantages.

► **Implement a strategy that develops export opportunities and foreign direct investment (FDI).** The Commonwealth can improve its ability to market the goods and services of our export-oriented clusters, which are often produced by smaller firms that lack the resources to mount an adequate marketing campaign. This is especially relevant to the Travel and Tourism Cluster. In our knowledge-based clusters, the Commonwealth should also pursue opportunities to attract foreign direct investment. International firms that locate or expand in Massachusetts increase competition, bring new ideas to the Commonwealth, and thereby improve our competitiveness and capacity for innovation.

Desired outcome: Firms in export-industry clusters continually innovate to meet high-value customer needs most effectively.

► **Support firms in our export industry clusters by providing specialized training services.** Our export clusters provide large, well-defined labor markets. They also typically have some form of industry organization that can communicate their training needs to government service providers. It is critical that the Commonwealth remains in close contact with these organizations to coordinate the development of training programs. Such efforts can meet the cluster's needs for skilled workers while providing attractive employment opportunities for our workforce.

► **Support firms in our export industry clusters by maintaining strong links with our university system.** Higher education offers research and development (R&D) and training resources to businesses. All too often, businesses are not aware of these resources or do not know how to access them. Regional cluster development should focus on building research relationships and developing college-level curricula and training programs. By leveraging these networks, the Commonwealth can strengthen our firms, workers, and academic institutions.

Success Measures

The following indicators will help the Commonwealth measure its progress toward supporting our export industry clusters:

Strong export-industry clusters throughout Massachusetts

- Growing number of firms and jobs exporting high-value goods and services outside the region or State
- Growing number of firms and employees in knowledge sector firms

The firms in our export industry clusters continually innovate to meet customer needs most effectively.

- Increasing capital investment
- Growing investment in worker training
- Increasing the number of patents awarded, in all regions
- Developing incentives that reward innovation, efficiency, and growth
- Employment growth in areas challenged by high rates of unemployment
- Increasing foreign direct investment and export growth
- Expanding linkages between business and higher education, particularly outside the Greater Boston area

Support Entrepreneurship and Innovation

Massachusetts has an abundance of assets in the area of entrepreneurship and innovation. The Commonwealth attracts substantial venture capital (VC) investment that supports the creation of new business ventures. Much of this investment leverages the State's solid knowledge creation network, comprised of universities, laboratories, incubators, angel investors, and supporting service firms. The State is also a leader in attracting federal investments in research and development (R&D).

However, the Commonwealth also faces challenges to its leadership position. The State's infrastructure supporting innovation is large and diverse, which makes it hard for new or small entrepreneurs to navigate and succeed. The Commonwealth does not actively celebrate and promote entrepreneurship (We have no bridge, tunnel, or courthouse that honors DEC's Kenneth Olsen or MIT's "Doc" Edgerton). There are also striking regional disparities in entrepreneurship and VC investments. The State's intake of federal R&D funds is increasingly shifting toward life sciences research and away from military technology and the physical sciences and State support for R&D in Massachusetts is among the lowest in the United States. Other states, meanwhile, are investing in their R&D infrastructure and becoming more competitive in securing federal R&D dollars.

Desired Outcomes

As developed in Chapter 4, the Commonwealth will have reached its goal of supporting entrepreneurship and innovation when it achieves the following desired outcomes:

- **A statewide climate where entrepreneurs flourish.** The calculated assumption of risk forms the foundation of entrepreneurship. The Commonwealth's ideal future

includes market-and culture-based incentives that encourage entrepreneurial behavior. That future also entails an enhanced business environment that fosters communication and resource coordination throughout the Commonwealth.

- **Reduced disparities in entrepreneurial opportunities.**

Currently, entrepreneurship and innovation are heavily weighted to the Greater Boston region of Massachusetts. Our ideal future includes vigorous and well-funded entrepreneurial communities throughout the Commonwealth and among traditionally underrepresented groups. This broadening of the entrepreneurial community will encourage greater specialization and competitiveness and higher incomes for the citizens of Massachusetts.

- **A strengthened technological innovation infrastructure.**

Our knowledge creation resources are among our most important assets supporting economic development. In the future, these assets will remain highly competitive and secure expanded funding for science and technology research.

What Government Can Do

In order to address these desired outcomes, we offer a set of policy options. These policy options are not the recommendations of the authors of this study. Rather, they offer a range of possible approaches to assist key stakeholders develop future policies and programs that support economic growth.

Desired outcome: A statewide climate where entrepreneurs flourish.

1. Establish an informed leadership framework for the entrepreneurial community.

- **Establish an Entrepreneurship Advisory Council.** The spirit of technical innovation has deep roots in the Commonwealth. However, today's business leaders do not see Massachusetts supporting entrepreneurship as vigorously as competing technology states, such as California. An Advisory Council to the Governor can raise the visibility of issues salient to the entrepreneurial community and focus government action on improving the Commonwealth's support for innovation. As the State's "Chief Entrepreneurial Officer," the Governor can take the lead in promoting entrepreneurship and focus popular attention on this key engine of the Massachusetts economy.

- **Establish a Center for Entrepreneurship.** Such a Center can address key gaps in supporting new business creation in the Commonwealth. Initially located within State government, the Center can be a clearinghouse for knowledge, resources, and best practices for government and

business. The Center can also benchmark the Commonwealth's business climate and support for entrepreneurship as compared to competing States. Ultimately, the Center would operate independently of State government.

2. Improve the coordination, communication, and delivery of services to the entrepreneurial community.

- **Ensure that State and quasi-public organizations provide services that meet the needs of small businesses.**

The Commonwealth's economic development structure was last redesigned in the early 1990s. As described in Chapter 2, the Massachusetts economy has changed in important ways since then. A review of State economic development organizations and their missions in light of these new realities could lead to a significant realignment of service delivery.

3. Effectively communicate the Commonwealth's commitment and success at serving the needs of its entrepreneurial community.

- **Improve perception of Massachusetts as a State for business.**

Support for business and entrepreneurship has improved significantly in the Commonwealth since the 1993 publication of *Choosing to Compete* – and State government's shift from an adversarial to a collaborative approach toward business. For example, a recent study by the Beacon Hill Institute³ ranked the Commonwealth second among all states in an index measuring competitiveness. Yet the perceptions of key leaders are not aligned with the data. In the same study, a survey of business executives, public servants, and academics ranked the Commonwealth among the lowest of eight states on a range of issues, including human resources, financing and environmental policy. The Commonwealth must not only continue to improve its business climate, it must also improve perceptions about Massachusetts held by both in-state and out-of-state business leaders.

Desired outcome: Reduced disparities in entrepreneurial opportunities

1. Increase venture capital availability outside I-495.

- **Task MTDC to develop a strategic plan to drive increasing VC investments outside the Greater Boston area.**

Since 1979, the Massachusetts Technology Development Corporation (MTDC) has successfully invested State resources in Massachusetts-based technology ventures. This expertise provides an excellent foundation for

³ *State Competitiveness Report*, 2001. Beacon Hill Institute, 2001

developing a realistic plan to boost investment in technology-based ventures in other regions of the Commonwealth. MTDC funding could be increased, should additional resources become available, to help implement the plan.

- ▶ **Create regional angel investor networks, connecting VC investors to new opportunities.** Active angel investors frequently focus on opportunities located close to their area of operations. The Commonwealth enjoys several networks of angel investors, each active in distinct regions of the State. A strategy of “networking the networks” can expose more potential investors to more business opportunities across the State.
- ▶ **Provide pre-venture technical assistance to firms.** Many firms interested in soliciting VC funding need help analyzing and documenting their proposed business opportunity. The proposition must also be developed in ways that account for current market conditions and investor preferences. The Commonwealth can help firms create fundable business plans, then provide effective ways to leverage networks of VC and angel investors.
- ▶ **Help firms with new or emerging technologies develop fundable credit profiles.** Firms introducing new technologies to the market often face difficulty in securing financing. This is because potential lenders do not understand the technology or, more importantly, because the new technology lacks a “track record” on which to assess risk. The Commonwealth should provide resources to help firms explain new technologies to potential lenders and develop appropriate credit profiles.

2. Broaden the State’s entrepreneurial community.

- ▶ **Conduct venture forums and training programs to promote entrepreneurship among women, minorities, and in all regions.** Regionally focused events and training programs can help enhance the visibility and raise the sights of entrepreneurs throughout the Commonwealth. These events can provide practical training on the fundamentals needed to succeed. Targeting underrepresented populations will tap new sources of talent, develop entrepreneurship relevant to local conditions, and more broadly develop the economy of the Commonwealth.
- ▶ **Develop a web-based marketplace linking entrepreneurs to opportunities and information.** Currently, entrepreneurs cannot easily locate accurate information describing capital resources in the Commonwealth. Also, owners interested in selling small businesses and prospective buy-

ers often cannot easily find each other. Internet-based applications can make information more accessible and create a small business marketplace in the Commonwealth. State government and the business community should leverage current initiatives like Mass.Gov and Mass-Connect to create these resources.

- ▶ **Monitor and support successes accrued by regional technology-networking initiatives.** Regional technology and entrepreneurship programs are just beginning to take root in the Commonwealth. In western Massachusetts, the Regional Technology Alliance (RTA) is establishing networks to quicken the pace of innovation and technology commercialization. Similarly, the Federal and State Technology Partnership program (FAST) will provide targeted outreach and services to increase the number of innovative technology businesses outside Greater Boston. State and regional policy makers should closely monitor the progress of these programs, leverage appropriate lessons, build on their successes, and provide support to expand and/or replicate successful models in other regions.

Desired outcome: A strengthened technological innovation infrastructure

- ▶ **Establish a leadership body for the research community in the Commonwealth.** Such a leadership body should develop an R&D strategic plan, monitor technology and funding trends, provide a network for collaboration, and ensure that the Commonwealth remains a leader in attracting federal R&D funds. It can also provide a direct link between the Commonwealth’s research establishment and State government. This leadership body could be a task force drawn from the Governor’s Council on Competitiveness described in the section entitled “Strong Export Industry Clusters throughout Massachusetts” on page 118.
- ▶ **Develop a strategic plan for science and technology investments and policy in the Commonwealth.** Today, many competing proposals for enhancing our science and technology system vie for support. They range from expanded funding for public-sector research facilities, to establishing R&D “Centers of Excellence,” to developing a statewide network of regional incubators. A comprehensive strategy with a prioritized agenda for State government investments is needed that clearly links the strengths of the Commonwealth’s research institutions to current and emerging trends in federal funding and private-sector R&D spending. Such a strategy can form a common agenda for

collaboration among academic institutions, firms, and government and can project an integrated and feasible investment plan that will support the Commonwealth's competitiveness over the long-term.

► **Dedicate resources to identify, track, and shape federal R&D policy in Washington, D.C.** Currently, the Commonwealth does not have staff dedicated to track and influence the development of federal R&D policy. Such a staff can develop relationships with various government agencies, learn about R&D funding trends and opportunities, and ensure efficient interaction between federal funders and the Massachusetts entities receiving the funds.

► **Explore ways to support federal research applicants and grant winners.** Applicants for federal grants increasingly face the requirement of State matching funds. Federal R&D funding recipients often face financial difficulties in moving ahead with their research agendas after initial funding. State support, financial or otherwise, can help Massachusetts institutions win competitive grants and can enhance the potential for converting such research into successful business ventures.

► **Provide strategic investments in R&D infrastructure in our public colleges and universities.** Our public colleges and universities have created excellent R&D centers. Successful science and technology facilities were developed in Lowell, Amherst and New Bedford, with strategic State capital investments. These centers offer a model for how strategic science and technology investments can successfully extend the Commonwealth's innovation infrastructure into underserved regions and communities. Select investments, as part of a broad science and technology strategy, can help our public universities contribute more effectively to the Commonwealth's economic development objectives.

Reduced disparities in entrepreneurial opportunities

- Increased firm formation across the Commonwealth and among underrepresented populations
- Increased availability of VC and traditional capital investments outside the Greater Boston region and among underrepresented populations

A strengthened technological innovation infrastructure

- Sustained or growing share of federal R&D funds
- Increased success in competition for R&D funding beyond defense and health care
- Growing private R&D investment
- Rising numbers of patents and technology licenses, with activity spreading to new regions of the Commonwealth
- Expanding numbers of "knowledge workers" (professional and technical workers)
- Improved national rankings in State investments in R&D and in the effectiveness of that investment

Success Measures

The Commonwealth proposes a number of success indicators to track progress toward supporting entrepreneurship and innovation:

A statewide climate where entrepreneurs flourish

- Increased levels of firm formation and micro-enterprise creation
- Increased availability of VC and traditional capital
- Improved perception of the Commonwealth's support for entrepreneurship and innovation
- Increased activity in terms of initial public offerings (IPO's) and mergers and acquisitions
- Increased number of public-traded fast growth companies

Prepare the Workforce of the 21st Century

The Commonwealth increasingly relies on the contributions of a well-educated, highly skilled, and flexible workforce. Our firms require such talent to succeed. And our workers need education, skills, and flexibility to meet the demands of a competitive marketplace.

Preparing such a workforce is never easy. Several specific challenges, however, complicate our task. The Commonwealth's workforce is growing very slowly. It would not be growing at all were it not for significant inflows of immigrant labor. The skills of our available workers thus become critical. Our employers continue to face shortages in key knowledge-intensive occupations, particularly in science and engineering fields. Over time, employers will continue to face challenges in filling such highly-skilled positions. A large portion of our workforce, on the other hand, lacks the basic skills necessary to function and compete in our knowledge-based economy. The Commonwealth's workforce development system, which is responsible for addressing issues of workforce preparedness, remains limited and ill-coordinated. Too many workers, even participants in our job training programs, fail to get the skills that they or our employers need.

Desired Outcomes

For an economic development strategy to be effective, it must first define what it hopes to accomplish. As developed in Chapter 4, the Commonwealth will have reached its goal of a workforce prepared for the twenty-first century when it achieves the following desired outcomes:

- **Our firms have access to the talent they need to succeed.**

Employers need workers who can read, write, and compute; who can assume responsibility for sophisticated tasks; and who have both the appropriate technical and the "soft" interpersonal skills needed to function effectively in teams. In the future, our employers should not have to conduct national or global searches to fill many of their most important positions.

- **Worker skills match the needs of business and the competitive environment.** Today's workers need a solid educational foundation, relevant technical and workplace skills, and the ability to adjust to a rapidly changing economy. It is expected that jobs that require an associate level degree or greater will grow the fastest.⁴ In the future, all of our workers must have the opportunity to obtain the education and training required to earn a middle-level income and to keep pace with workplace changes throughout their careers.

There are various approaches for achieving each of these outcomes. Take the first – expanding the supply of talent in the Commonwealth. Our schools could improve the quality of

their career-oriented programs. Employers could strengthen internal training programs or their involvement with external providers. The Commonwealth could step up efforts to attract and retain superior talent. Under each approach, there is an array of initiatives that could expand the supply of talent in the Commonwealth.

What Government Can Do

In order to address these desired outcomes, we offer a set of policy options. These policy options are not the recommendations of the authors of this study. Rather, they offer a range of possible approaches to assist key stakeholders in developing future policies and programs that support economic growth.

Desired outcome: Our firms have access to the talent they need to succeed

1. Improve the quality and employer involvement in the career-oriented programs provided by our schools.

► **Expand school-to-work programs.** These programs link businesses and education in ways that expose our students to future career paths. These programs can help drive future career choices, focus curricula around practical, "real world" problems, and introduce students to many "soft" skills needed to succeed in the workplace. Centers of Excellence, establishing links between local workforce investment boards, middle and high schools, businesses, and teachers, provide a model for expanded business involvement. These outcomes can improve the quality of education for students and their future employers.

► **Support more curricula development between businesses and our institutions of higher education.** Cooperative curricula design is a logical extension of other successful collaborations between business and higher education. As partners, businesses and educational institutions can make education more meaningful and effective for the local workforce. Business and educators should work together to ensure students are receiving a broad-based education, while developing the specific skills that will prepare them for the local job opportunities. One example is the collaboration between the University of Massachusetts, the community colleges and the information technology industry through the Commonwealth Information Technology Initiative (CITI) project. Higher educational institutions should be encouraged to pursue similar efforts to collaboratively

⁴ For details, see Division of Employment and Training, Economic Analysis Department, *Massachusetts Employment Projections through 2008: A Focus on the Jobs, the Industries, and the Workforce, 2000*.

develop appropriate curricula with representatives of rapidly growing industry clusters like the life sciences.

- **Organize and support a campaign to promote the study of math/science and engineering.** Expand programs like the “Engineering in Massachusetts Collaborative” (EiMC) to other colleges and regions. The EiMC brings together leaders from business and education who are devoted to increasing the number of graduates in science and technology programs. While the Collaborative draws its Executive Committee from across the State, it functions primarily at the University of Massachusetts, Lowell campus, the Worcester Polytechnic Institute, Northeastern University, and Tufts University. Expansion to other campuses would extend this important network to other regions of the Commonwealth.

2. Strengthen employer involvement in worker training.

- **Enhance industry-driven training programs such as the Workforce Training Fund (WTF) and Building Essential Skills through Training (BEST).** The WTF, funded by an employer-paid unemployment insurance contribution, provides resources to Massachusetts businesses to improve employee skills. The BEST initiative funds regional and collaborative proposals that enhance the skills of front-line workers. These proposals must have the support of the Local Workforce Investment Board (LWIB), businesses, education or training providers, and organized labor.

3. Step up the Commonwealth’s efforts to attract and retain superior talent.

- **Establish marketing programs to attract students and retain graduates at our institutions of higher education.** More than 75 percent of all students who graduate from our public institutions of higher education settle in the Commonwealth. A much smaller share of students at our private institutions makes the same choice. The Commonwealth has a strong interest in encouraging private college students to remain in the State to live and work. Educating these audiences regarding available opportunities could increase the supply of skilled workers in our economy.
- **Create financial incentives that reward students for staying in Massachusetts.** Loan forgiveness or deferral programs can encourage in-State and out-of-state college students to live and work in the Commonwealth. Similar incentives can encourage in-State students to pursue knowledge-intensive occupations and remain in Massachusetts. The Commonwealth Futures Program and Tomorrow’s Teachers Scholarship Program are two examples.

Desired outcome: Worker skills match the needs of business and the competitive environment

1. Every Massachusetts resident graduates from high school with the necessary skills to compete and advance to higher education, if desired.

- **Maintain the commitment to education reform.** The three-tiered reform strategy dates to 1993 and includes increased school funding, student testing, and the enforcement of school performance standards. This long-term strategy is just beginning to yield notable improvements in many communities. Continued commitment to these reforms will benefit our children, our communities, and our businesses.

- **Target resources and policy attention to reduce dropout rates in our high schools.** High school dropouts make up a substantial share of the Commonwealth’s workforce that lack basic skills. A small number of high schools in the Commonwealth – mostly in urban areas – generate the majority of our dropouts. Focused attention and programs such as school-to-work initiatives and career mentoring should help these high schools sharply reduce their dropout rate.

- **Assure adequate instruction in mathematics, science, and engineering.** Strong instruction needs to begin at the middle school level, if not earlier. Success requires a solution to the severe shortage of K-12 math and science teachers. Our public colleges and universities, which train the bulk of our teachers, must also have the resources necessary to be able to retain computer science and engineering faculty who are being recruited by other states and industries.

2. Provide the higher education required for workers to attain a better standard of living.

- **Tie public education budgets to increasing enrollments in targeted programs, such as science and technology.** Our public colleges and universities are important sources of the Commonwealth’s skilled workforce. In the future, the State should explore various ways to encourage public colleges and universities to boost the number of graduates in fields such as science, education, and healthcare programs.
- **Develop transitional programs.** A greater proportion of our high school students need to have the opportunity to attend college, particularly students from urban areas and under-represented groups. We should encourage high school students in skills training programs to enter college-track programs and community college students to continue their studies at a university to secure a four-year degree.

- **Invest in higher education.** So that all students in the Commonwealth have access to a high-quality college education, both operating and capital expenditures-per-student in Massachusetts should be comparable to those in competing knowledge-based states.

3. Adult education is available to help Massachusetts residents become and/or remain more competitive.

- **Improve the availability of Adult Basic Education (ABE) and English for Speakers of Other Language (ESOL) training.** The demand for these programs far outstrips availability. Classes are often held at inconvenient times and places, and potential students are often not aware of available training opportunities. Solving these problems would significantly expand the skill base of our workforce, benefiting employers and workers alike.
- **Revise ABE curricula to focus on workplace training.** Employers frequently note that ABE programs stress academics over practical skills training that students could use in the workplace. Increasing emphasis on workplace skills can boost the immediate impact of ABE for both students and employers, and thus make these programs more attractive. Employers and training providers should collaborate to devise ways to accomplish this goal.

4. Develop an effective “lifelong learning training” system, so that every Massachusetts worker can upgrade his or her skills.

- **Coordinate responsibilities for workforce development and education among appropriate State agencies.** Education and workforce training have distinct roles in supporting the continuous, lifelong learning of the Commonwealth’s workforce. Defining clear and distinct roles for public primary education, public higher education, and the adult workforce development system, in support of lifelong learning, can ensure effective allocation of limited resources while minimizing duplication and mission overlap. The overall objective of all entities involved in workforce development must be to ensure that the Massachusetts workers receive the education and training they require to compete in the new knowledge-based economy. This will require these institutions to periodically adapt their programs to meet the needs of a changing economy.
- **Empower the State Workforce Investment Board (SWIB) to lead the skills training portion of workforce policy development.** The SWIB coordinates and oversees workforce development programs funded by the Workforce Investment Act (WIA). Workforce training resources outside WIA-funded programs should be brought into a sin-

gle, integrated system. With a strong private-sector voice, the SWIB can pursue an aggressive, long-term agenda of performance-driven change and be held accountable for measurable results.

- **Improve career center responsiveness to individual and business needs.** Our career centers are the Commonwealth’s “one stop” workforce development resource for individuals and businesses. These career centers should be the cornerstone of our workforce development system and, as such, be the service delivery mechanism for both job seekers and business alike. Businesses need to be made aware that these centers are places where they can list job openings and find the workers they need. While individuals must exercise initiative to advance their careers, these centers provide important resources to individuals who want to build skills and remain competitive. Yet many job seekers and businesses do not know about these centers, their mission, and their resources. Expanded marketing and a greater use of the Internet and other new technologies could significantly improve their visibility and effectiveness.

Success Measures

The Commonwealth proposes a number of success indicators to help track progress toward achieving desired outcomes relating to workforce improvement:

Our firms have access to the talent they need to succeed

- Rising share of out-of-State college students who remain in our State to live and work
- Greater number of in-State college students graduating from science, education, and health care degree programs
- Increasing private-sector investment in worker training
- Growing number of partnerships between business and education
- Rising share of high school students displaying proficiency in math and science
- Increased share of high school graduates entering college

Worker skills match the needs of business and the competitive environment

- Businesses define their training and education needs and share them with education and training providers through partnerships
- Falling high school dropout rates among Massachusetts students
- Rising standardized test scores throughout the Commonwealth
- Significantly shortened waiting lists for Adult Basic Education and English for Speakers of Other Language classes, provided at varied times and days of week
- Strengthened State Workforce Investment Board (SWIB), measured in terms of progress implementing the SWIB strategic plan

- Clear workforce development policy mandates for public primary education, public higher education, and workforce development
- Increasing percentage of Massachusetts residents possess four-year degrees

Build the Information Infrastructure of the 21st Century

High-speed Internet connectivity has emerged as a critical element of the infrastructure of the new knowledge-based economy. As good roads and access to affordable electric power is essential to the economic success of businesses and regions, the same can now be said about access to affordable high-speed Internet (or “broadband”) services.

Massachusetts is a leading State in terms of the availability of high-speed Internet access. A range of technological, market, and regulatory hurdles, however, make broadband services either unavailable or too expensive in many areas of the Commonwealth. Small businesses and those who maintain small offices often cannot afford high-speed access provided over dedicated T-1 telephone lines. Alternatives, such as DSL or cable modem services, are either unavailable or not optimized for business use. If our small businesses are to compete in today’s fast-paced, knowledge-based, and increasingly global economy, access to a range of affordable broadband services is essential. Such an infrastructure will also help our citizens get the information and resources needed to succeed and prosper.

Desired Outcome

As developed in Chapter 4, the Commonwealth will have reached its goal of building an information infrastructure for twenty-first century when it achieves the following desired outcome:

Access to affordable competitive broadband options throughout the Commonwealth.

What Government Can Do

In order to address this desired outcome, we offer a set of policy options. These policy options are not the recommendations of the authors of this study. Rather, they offer a range of possible approaches to help stakeholders develop future policies and programs that support economic growth.

1. Strengthen public-private partnerships for broadband deployment.

- ▶ **Establish a Governor’s informal working group to determine the broadband needs and priorities for small and medium-sized businesses.** This group can highlight needs, priorities, and roles for government. The working group can also stress the importance of broadband affordability, while advising the Governor on appropriate strategies and programs.

- ▶ **Direct the Massachusetts Technology Collaborative (MTC) to develop a strategy for broadband deployment.** MTC is uniquely positioned to convene the parties interested in broadband deployment, conduct the necessary research, and craft an optimal strategy for broadband development.

That strategy should define roles for government and the private sector and identify specific measurable goals addressing connectivity speed and availability. MTC can maintain and revise the strategy, as needed, to accommodate other emerging telecommunications technologies.

- ▶ **Pursue a “no harm policy,” with the intent to minimize regulation and interference.** Federal and state governments regulate telecommunications services, but the private sector provides the necessary infrastructure investment. Arbitrary regulation changes could have major adverse implications for broadband service delivery. A pledge to maintain a predictable and “technology neutral” environment would encourage current providers to continue investing in infrastructure and service delivery.

2. Leverage our available resources to encourage deployment.

- ▶ **Establish a broadband authority to facilitate deployment.** Some states, like Michigan, have created a formal broadband authority to ensure uniform oversight over matters such as pole and conduit rights-of-way, as well as to provide financing capacity. Currently, local governments impose a variety of levies when providing access to rights-of way for broadband providers. To enhance efficiency and ensure uniform practices, a State-level authority could collect the access fees and pass on a portion of the revenues to local governments. Additional fees collected could be used to provide low interest loans to fund deployment in underserved areas.

- ▶ **Track broadband deployment trends and best practices.** Developing a strategy for broadband deployment requires a clear understanding of trends and barriers that bear on service availability and of successful deployment programs throughout the world. Tracking best practices can help benchmark our progress and identify new policy alternatives.

- ▶ **Study the implications of using the Commonwealth’s telecom buying power to support demand aggregation and infrastructure build-out.** The Commonwealth invests approximately \$40 million in voice and data transmission services per year. The State should be able to leverage its market power to support regional demand

aggregation or infrastructure build-out efforts. However, the potential outcomes, as well as potential costs for the Commonwealth, are not well understood. A formal study would help Massachusetts determine options that can best boost the availability of affordable services.

- ▶ **Commit the Commonwealth to becoming a cutting-edge technology user.** Limited demand is one reason why affordable broadband service has not reached all regions of the State. The Commonwealth can help boost demand by committing itself to use telecom applications and technologies to improve its delivery of government services. One option is to provide broadband-based economic development services to businesses through the MassConnect project, the State's economic development web portal, as well as Mass.gov.
- ▶ **Fully develop opportunities offered by the Universal Service Fund (USF).** Under the direction of Congress, the Federal Communications Commission (FCC) developed the Federal USF to bridge the "digital divide" and promote telecommunications services to under-served communities. The four areas targeted by the USF are low income, high cost, schools and libraries, and rural health care markets. The Commonwealth should study all four areas to ensure it is gaining its "fair share" of funding, and apply USF resources to foster broadband deployment.

3. Achieve facilities-based competition through expanded private investment.

- ▶ **Evaluate and apply lessons learned from current demand aggregation programs.** Today, there are a number of demand aggregation efforts underway in different regions throughout the Commonwealth. However, the State lacks a clear understanding of progress, remaining unmet demand, and other factors bearing on successful aggregation. An objective assessment can help the Commonwealth determine how to expand demand aggregation efforts most effectively within and across regions.
- ▶ **Simplify local oversight of broadband service delivery.** The technical details and industry dynamics associated with broadband service delivery present a serious challenge to local governments to provide effective oversight. State government can help communities respond to these challenges by providing various forms of technical assistance, including model franchising agreements, as well as customer aggregation tools to encourage broadband deployment. Updated guidance on wireless siting laws can help communities adopt bylaws that better respond to local needs. A statewide fund to insure communities against wire-

less tower abandonment would enhance trust among communities and providers. The Commonwealth can also help communities identify qualified technical expertise by developing a consultant registry and offer alternatives to protracted legal proceedings over tower siting.

- ▶ **Explore tax incentives to encourage build-out in under-served areas.** The Commonwealth can use tax incentives to encourage expanded availability of affordable broadband options. For example, providers could recover the cost of access fees levied by cities and towns through a tax credit of equal value. In considering such changes, there is limited knowledge of what incentive structure could most effectively advance the Commonwealth's broadband deployment goals. A detailed analysis can identify the costs for the Commonwealth, as well the benefits accrued, for incentives that encourage broadband deployment.

4. Build strong links between business and education.

- ▶ **Establish telecommunications and information management programs for managers, systems maintenance workers, and technicians.** The Commonwealth currently lacks sufficient education and training programs to meet the needs of the telecommunications services industry. Employers in the State have significant needs at the manager, system maintenance, and field technician levels. Our telecommunications service providers and employers should define the needed skills, and our colleges, universities, community colleges, and vocational schools should provide the needed training. These programs can help address the significant skill gaps among industry workers and increase the State's attractiveness to employers.

Success Measures

The following measures can help the Commonwealth measure progress toward achieving its desired outcome for building the information infrastructure of the twenty-first century:

- A Statewide strategy for affordable broadband deployment
- An increasing number of businesses and households with access to affordable broadband options
- An increasing number of broadband service providers in all regions of the Commonwealth
- A capability for mapping and tracking the status of broadband deployment in the Commonwealth, as well as the means to monitor and disseminate best practices developed worldwide
- An increase in broadband investment is achieved in through improved regulatory policies

Ensure that Economic Growth is Compatible with Community and Environment

Massachusetts must develop growth strategies designed to balance economic development with the needs of our communities and the environment. The Commonwealth must meet the challenges created by rapidly escalating housing prices and increased infrastructure demands, while limiting sprawl and environmental damage. Effective management of these issues is fundamental to preserving our attractiveness to businesses and to providing a high quality of life for our citizens. These growth challenges need to be addressed in a way that encourages cooperation between the State and our cities and towns. State government can – and should – leverage the strength of our communities by providing support and incentives to promote sustainable growth patterns.

Desired Outcomes

As described in Chapter 4, the Commonwealth can meet these challenges by achieving the following desired outcomes:

- **Massachusetts is a leader in implementing development strategies that preserve a high quality of life.** Massachusetts is not alone in confronting challenges generated by rapid and uneven growth. Land use patterns throughout the nation are often inefficient, generating significant environmental and social costs. These include traffic congestion, degraded water quality, air pollution, urban disinvestment, and loss of farmland and open space. Exercising leadership in growth planning will help ensure that our State remains an excellent place in which to live and grow.
- **Massachusetts implements housing affordability solutions to support growing businesses and their employees.** High housing costs present a serious challenge to employers seeking to attract and retain workers. An increased supply of housing should moderate price increases. This will make the State a more attractive location for business expansion.

What Government Can Do

In order to address these desired outcomes we offer a set of policy options. These policy options are not the recommendations of the authors of this study. Rather, they offer a range of possible approaches to assist key stakeholders develop future policies and programs that support economic growth.

Desired outcome: Massachusetts is a leader in implementing development strategies that preserve a high quality of life

- **Create a high-level State planning body to develop a vision for balanced growth in the Commonwealth.**

Such a body could be a committee of State agency leaders or a non-partisan commission that includes the regional planning agencies (RPAs). It would develop a coordinated policy that encourages higher-density development in interested regions, ensures that State funding does not subsidize sprawl, and strengthens planning efforts at the local level. A commission could take on a broader mandate, including greater coordination among regions and support development of statewide community preservation goals (CPGs) that can encourage adoption by cities and towns.

- **Inventory the Commonwealth's infrastructure needs and community preservation goals (CPGs).** A comprehensive inventory of the Commonwealth's infrastructure can provide a baseline for developing investment and usage priorities. The State can offer guidance to cities and towns in the development of CPGs and apply them to the inventory to prioritize infrastructure investments. Communities or regions proposing development projects with high CPG scores per investment dollar would gain priority access to infrastructure funds. CPGs can provide standards all State agencies can apply to ensure their programs do not subsidize sprawl and disjointed infrastructure investment and that they encourage housing affordability.

- **Issue State Development Grants with bonding authority allotted to a State Planning Commission.** A planning commission could encourage higher density development through financial resources or incentives. One financial resource could be proceeds from the sale of State bonds. The Commission could use the funds to sponsor necessary studies and to support infrastructure investments that are consistent with the Commonwealth's community preservation goals (CPGs).

- **Create incentives to encourage higher density development.** The current trend toward low density development is driven by existing regulations, market dynamics, the preferences of existing homeowners, and the fact that the costs of sprawl are borne by "the public" rather than by the developer or home buyer. Creative incentive structures could persuade the private sector and local governments to consider other options. Encouraging change will also require a public-private partnership to develop "best practices" and offer examples of model development. Enhancing the Economic Development Incentive Program (EDIP) to encourage higher density development, downtown redevelopment, and public transportation-oriented development programs could encourage developers to pur-

sue more sustainable development options. Similarly, the State could provide enhanced local aid or sustainable development grant funds to communities that develop comprehensive plans and advance the Commonwealth's community preservation goals (CPGs).

- ▶ **Expand the roles of regional planning agencies (RPAs) and metropolitan planning offices (MPOs) to provide enhanced planning capacity to communities.** Regional planning agencies provide critical transportation, economic development, housing, environmental, and other planning services for their regions. As such, they enjoy an accepted regional mandate on issues closely related to development. An expanded mandate, with expanded capacity, would allow the RPAs to provide cities and towns with resources to pursue their planning objectives in a more comprehensive fashion. They could help develop model zoning plans, address infrastructure challenges, or limit low density development. In this capacity, they would serve as a resource, not an additional oversight body.
- ▶ **Provide an increased investment tax credit (ITC) on total project investment related to “brownfields” and “greyfields” development.** The Commonwealth has made much progress on the cleanup and reuse of contaminated industrial properties often referred to as “brownfields.” However, many properties—including greyfields—remain vacant or underutilized. The term “greyfields” is often associated with large vacant or underutilized paved areas adjacent to primarily retail real estate uses. Legislation can structure the ITC to encourage property reuse that supports higher density development, including mixed-use development. Enhanced tax credits can provide additional financial incentive to developers.
- ▶ **Create urban and suburban “model zoning” for use in brownfields and greyfields development.** Many communities lack the expertise to comprehend the science and regulations bearing on site reuse and development. Model zoning can help communities understand the opportunities and limitations inherent in brownfields and greyfields redevelopment. Model zoning should also be accompanied by “best practice” examples of model development.

Desired outcome: Massachusetts implements housing affordability solutions to support growing businesses and their employees

- ▶ **Provide housing affordability awareness through regional forums.** Organize regional forums to help communities understand and address their housing needs.
- ▶ **Enhance Economic Development Incentive Program (EDIP) incentives to encourage development of affordable housing solutions.** The State's EDIP program currently provides an Investment Tax Credit and Tax Increment Financing for qualified properties in targeted communities. The Commonwealth should extend the program to support affordable, higher density housing. Agencies that comprise the Economic Assistance Coordinating Council (EACC) should also develop model zoning that allows higher density uses.⁵
- ▶ **Reduce barriers to housing development created by local bylaws.** The Department of Environmental Protection (DEP) provides overall guidance on Title 5, regulations governing the installation and maintenance of septic systems. There are those who argue that some local bylaws that exceed DEP guidance are not based on sound science and put unnecessary burdens on the development of new housing. Local boards of health should be required to submit documentation of the need to exceed Title 5 requirements. The Department of Housing and Community Development (DHCD) and DEP should also provide guidance and education on the subject to local boards of health.
- ▶ **Provide zoning and permit coordination to encourage housing development.** The State should support further study of density regulations and develop model zoning regulations to encourage balanced development and to discourage sprawl. The Commonwealth should work with the Massachusetts Municipal Association (MMA) to review local permitting fee structures and to develop alternatives to municipal growth control by-laws that limit housing production.
- ▶ **Provide incentives for employer assisted housing programs.** The State could provide tax incentives to businesses that develop employer-assisted housing programs that support their workforce needs in local communities.
- ▶ **Allow the transfer of development rights for affordable housing.** The transfer of affordable housing rights among

⁵ The EACC is co-chaired by the Director of Department of Economic Development and the Department of Housing and Community Development. EACC membership includes the Massachusetts Office of Business Development and the Department of Labor and Workforce Development. The EACC also includes seven gubernatorial appointees representing higher education and six regions in the Commonwealth, all with expertise in economic development issues.

communities can help lead to regional solutions to the availability of affordable housing. Currently, many communities resist efforts to increase the affordable housing stock under Chapter 40B regulations. Transferability would allow communities to exchange the requirement to create additional affordable housing stock for cash or other support, such as regionalized services.

Success Measures

The Commonwealth will progress toward its goals when:

Massachusetts is a leader in implementing development growth strategies to preserve high quality of life

- The Commonwealth's number of residents per urbanized acre increases over time, while the number per acre in rural areas remains stable
- The population and economic output of the Commonwealth's struggling urban areas increases
- A State-level planning entity articulates a clear vision and goals for balanced development
- State agencies prioritize the funding of infrastructure projects that support higher density development
- Cities and towns gain additional resources to plan for balanced growth

Massachusetts implements housing affordability solutions to support growing businesses and their employees

- The Commonwealth develops a clear definition for affordable housing needs that considers regional differences
- The share of housing stock considered affordable increases in all regions of the Commonwealth

Improve the Outcomes of Government Action

Government actions shape economic development in several important ways. These include tax policy, infrastructure investment, regulation, location subsidies, industry support and public-private partnerships. Since the release of *Choosing to Compete*, the State has developed a strategic response that uses these government levers to improve the business climate. In the future, a knowledge-led economy will benefit even more from a government that simplifies service delivery and focuses on collaborative approaches. Governments increasingly rely on information technologies to communicate effectively with its constituents, respond to their needs, and promote a competitive business climate. The most successful states will be better positioned to attract and retain innovation-driven businesses that enhance the economic prosperity of their residents.

The Commonwealth confronts several challenges to improving the outcomes generated by State and local government. Information on government services is often difficult to access and understand, especially for smaller businesses. Regulatory reform in the Commonwealth has improved the situation, but more work needs to be done. Increasing emphasis on collaborative forms of regulation has yet to reward innovation or efficiency gains. Nor has this emphasis encouraged the deployment of new technologies that lower costs. Current budgetary pressures add urgency to the need for efficiency in government. The business community expects government to maintain fiscal stability and, predictability, while not imposing regulations that constrain business growth. Finally, the need for efficiency in government has assumed new urgency in the aftermath of terrorist attacks in September 2001. At a time of severe budget constraints, State and local governments must take on the added responsibilities to assure the security of our people and infrastructure.

Desired Outcomes

As described in Chapter 4, the Commonwealth will have reached its goal of improving the outcomes of government action when it achieves the following desired outcomes:

- **State government provides more effective and better-coordinated services and resources to businesses, particularly small businesses.** State government provides closely related economic development services through multiple agencies. This approach has benefits, including greater specialization and flexibility. But current service delivery is inadequately coordinated, small businesses have a hard time understanding the system and are often unaware of useful services and resources.
- **Business and government develop “wise” regulations.** Seeking ways to improve regulation is critical to the relation-

ship between business and government. While regulation often increases transaction costs for firms, it also protects the public and assures entrepreneurs a level and competitive playing field. Business and government, traditionally placed in adversarial roles, must seek outcomes that benefit both their interests to create regulations that lower transaction costs, simplify compliance, and create opportunities for collaboration.

- **Massachusetts is widely recognized as a leader among States in developing innovations in government.** A commitment to leadership can move the Commonwealth to implement substantial improvements in the delivery of government services and provide more effective support for business activity.
- **Massachusetts enhances the competitiveness of its regions by reducing costs impacting all businesses.** The Commonwealth will never be a low-cost State in which to conduct business. However, the Commonwealth cannot ignore the cost of doing business if it is to be an attractive place for firms to form and grow. Lowering costs, or making cost-growth predictable, will encourage the formation of export industry clusters in all regions of the Commonwealth.
- **Massachusetts has a well-coordinated and effective response to terrorist attacks.** Attacks and disruptions could substantially damage our economy, as well as cause death and serious injury. Government must do all it can to prevent attacks and to respond effectively to mitigate impacts.

What Government Can Do

In order to address these desired outcomes we offer a set of policy options. These policy options are not the recommendations of the authors of this study. Rather, they offer a range of possible approaches to assist key stakeholders develop future policies and programs that support economic growth.

Desired outcome: State government provides more effective and better-coordinated services and resources to businesses, particularly small businesses

Create a strategic focus and shared vision among economic development agencies and quasi-publics.

- ▶ Analyze agency mandates to identify ways to increase the efficiency of economic development services. Several State agencies provide significant economic development services. Chief among these are the Department of Economic Development (DED), the Department of Labor and Workforce Development (DLWD), Department of Housing and Community Development (DHCD) and the

Office of Consumer Affairs and Business Regulation (OCABR). A periodic review of agency mandates, resources, and activities can identify opportunities to eliminate duplication and maximize the use of public funds.

- ▶ **Explore ways to improve the coordination of quasi-public activities that provide economic development services.** The State has a number of quasi-public entities that promote economic development. The Quasi-Public Planning Council (QPPC) is charged with orchestrating the efforts of these varied entities toward a common purpose. The Governor should charge the QPPC members with developing plans that address a common set of priorities for economic development and improve cross-agency coordination.
- ▶ **Encourage collaborative marketing and outreach among economic development agencies and quasi-publics.** Various State agencies simultaneously pursue marketing programs to promote economic development in the Commonwealth. This uncoordinated strategy often leads to contradictory or duplicative messages. Collaborative marketing strategies and an integrated marketing plan, possibly through a single brand manager, can deliver clear, linked messages about economic development and reduce administrative costs.
- ▶ **Continue support for the MassConnect initiative to enhance economic development through the Internet.** The initiative, in concert with the Mass.Gov effort, has made progress towards providing business with a “one stop” clearinghouse for public and private economic development information. The portal can also provide information on regulations and other resources to strengthen the relationship between business and government.

Desired outcome: Business and government develop “wise” regulations

1. Create a “wise regulation” mandate within government.

- ▶ **Create leadership and capacity in State government to evaluate and improve regulation.** The Commonwealth has made great strides in eliminating unnecessary regulations and opening up its regulatory process. However, senior staff in the Governor’s Office or the Executive Office of Administration and Finance should ensure that agencies develop new regulations in a coordinated manner, that they adequately account for the needs of businesses, and that they subject all existing regulations to periodic a “sun-set” review to determine if they are still needed.

2. Enhance regulatory effectiveness and efficiency.

- ▶ **Ensure all proposed regulations are clear and have favorable cost/benefit ratios.** Regulations are often vague and difficult to understand, especially for small businesses that often lack “in house” regulatory expertise. Agencies should express all regulations utilizing the simplest terms possible to ensure that all businesses can understand the terms and intent of compliance. Also, no future regulation should be proposed without a clear estimate of implementation costs and estimated benefits.
- ▶ **Direct a cross-agency review of regulations affecting small business.** Such a review can identify regulations that are difficult to understand and impose unduly difficult compliance requirements. This process can direct agencies to develop solutions that improve the responsiveness of government and simplify compliance. It can also identify unreasonable regulations that have no clear public benefit and should be eliminated. For example, such a review could improve the coordination of building and specialty codes to reduce barriers to housing development.

Desired outcome: Massachusetts is widely recognized as a leader among States in developing innovations in government

1. Create an environment that promotes change in government.

- ▶ **Create an Office of Innovations in Government.** The State’s difficult financial situation provides new impetus to build on existing initiatives and create such an entity to achieve significant improvements in organizational design and service delivery. Current efforts should clearly focus on cost effectiveness. All innovations, however, must be customer focused, measuring value by targeting the needs of citizens and businesses and be subject to rigorous performance measurement. To succeed, such an entity requires high-level leadership from within the Governor’s Office or the Executive Office of Administration and Finance.

2. Promote the use of “best practices” in government.

- ▶ **Analyze “best practices” with public/private partnerships and privatization.** The Office of Innovations can take the lead in studying effective innovations developed in other states, including government partnerships and privatization. Research findings can form the basis for innovations in Massachusetts.
- ▶ **Explore current opportunities to improve service delivery and program administration.** The Commonwealth has two on-going initiatives, Mass.gov and the Managing for

Results Initiative (MRI), that can be platforms for further government innovation. This policy option also includes the application of best practices to the needs of the Commonwealth. Agencies can also apply management concepts such as “zero-based” budgeting and activity-based costing to drive fresh approaches to service delivery.

- ▶ **Encourage evaluation of alternative technologies and reasonable scientific inquiry in the regulation of business.** The University of Massachusetts and the Executive Office of Environmental Affairs, for example, created the Strategic Environmental Technology Partnership (STEP) in 1994 to help devise innovative solutions to environmental issues. In 2000, STEP served 125 firms and collaborated on 35 research and development projects in several areas, including mercury reduction, wind power, and food waste recycling. The Commonwealth should encourage additional research to develop technologies that support better alternatives to existing standards and requirements. Current examples that affect housing development in the Commonwealth include the use of shared septic systems, and the re-evaluation of the science that forms the basis for Title V septic regulations.

- ▶ **Recognize “good compliers” for exceeding compliance standards.** Many firms in the Commonwealth devote considerable energy to meeting or exceeding compliance standards set by State regulators. These efforts have positive benefits for our citizens, but often go without public recognition. Investing the effort to identify and recognize these corporate “good citizens” can raise awareness of compliance and encourage similar behavior among other firms.

Desired outcome: Massachusetts enhances the competitiveness of its regions by reducing costs impacting all businesses

- ▶ **Reform tax policies to encourage innovation and increase predictability.** The Commonwealth can implement several changes that encourage investment and boost incentives for research. In the appropriate fiscal environment, a reform agenda should explore costs to the Commonwealth, as well as opportunities. A number of measures can make a difference, such as tax credits for training and making the investment tax credit (ITC) permanent. Allowing for the sale of unused tax certificates can offer immediate benefits to firms. For example, extended research and development (R&D) cycles prevent many firms from taking full advantage of the R&D tax credit. Allowing for sale of R&D certificates can help

firms gain financial benefits immediately, rather than in the future.

► **Help employers, State government, and our Health Care cluster address rising health care costs.** The Commonwealth is a global leader in the development of health care technologies and the delivery of health care services. However, rapidly rising health care costs are placing increasing pressure on employer and public-sector budgets, both in the Commonwealth and elsewhere. DED should collaborate with leading players in our Health Care cluster and with the Governor's task force on Health Care to find ways to control costs and enhance efficiency. This will not only help our local economy, but also help the Commonwealth become a leader in developing export-able strategies for managing health care delivery systems.⁶

► **Examine and pursue Unemployment Insurance (UI) reform.** Current UI laws impose upper and lower limits on what firms pay into the UI trust fund. Firms with limited layoff activity pay into the trust fund more than their layoffs cost while firms with extensive activity pay less than the cost of their layoffs. This imbalance results in higher costs for businesses in industries with limited layoff activity, which subsidize UI costs for firms with high lay-off activity. Changes can help lower business costs for industries with limited layoff activity and encourage firms to retain employees.

Desired outcome: Massachusetts offers a well-coordinated and effective response to terrorist attacks

1. Improve security at airports, seaports, and other nodes of commerce and travel.

► **Establish standard-setting security improvements at Logan International Airport and other transportation facilities.** Much of America's traveling public – including business travelers – remains skeptical of airport security. Many of the Commonwealth's other transportation modes, including seaports and intermodal transportation points, remain vulnerable to terrorist attack and are a focal point of public concern. Aggressive measures to increase the security at these facilities would limit threats, decrease insurance premiums, and help restore public confidence.

Restored traveler confidence would also boost the Commonwealth's travel and tourism industry.

2. Involve the private sector in the development of homeland security policy.

► **Ensure the voice of business is present on advisory board(s) relating to public security and disaster response.** The Commonwealth's preparation for future attacks and disruptions will have implications for our businesses and other major employers. As such, the private sector should have a voice in planning and oversight. Private industry has capabilities and resources that could be beneficial to the Commonwealth in the event of an emergency. Private industry has an interest in ensuring that preparations are effective and anticipate a range of potential future scenarios without imposing undue additional costs. One option is to ensure the DED Director sits on any governmental task force established to coordinate Commonwealth security. Another option is to develop a private-sector advisory council on homeland defense. Either option can help ensure that government addresses the needs of business.

► **Business and government collaborate to inventory infrastructure risks.** Government agencies will plan to protect and restore critical infrastructure as part of the disaster planning process. However, these planners may not account for the infrastructure needs of our businesses, especially our knowledge-intensive businesses. Understanding which infrastructure assets are most critical to the private sector would help speed recovery and the restoration of normal business activity in the event of an emergency.

Success Measures

The Commonwealth will progress toward achieving its vision of if it attains the desired outcomes for improving government action:

State government provides more effective and better coordinated services and resources to businesses, particularly small businesses.

- The Commonwealth develops a single, well-coordinated marketing plan

⁶To learn more about the task force and its recommendations, see the Massachusetts Health Care Task Force Final Report to the Task Force From the Co-Chairs and Working Groups at <http://www.state.ma.us/healthcare/>.

- The Commonwealth continues its financial commitment to e-government initiatives that enhance economic development through the Internet

Business and Government develop “wise” regulations

- All regulations affecting small businesses are clear, inexpensive to implement, and impose reasonable costs relative to public benefit
- Regulations affecting business are subjected to a “sunset review” every three years
- The state is recognized as a leader in regulatory reform

Massachusetts is widely recognized as a leader among states in developing innovations in government

- The Commonwealth is ranked as a top innovator by leading institutions, such as: The Innovations in Government Program at the Kennedy School of Government at Harvard University; The National Center for Public Productivity at Rutgers University and The National Governor’s Association Center for Best Practices
- The Commonwealth implements reforms – developed both in the Commonwealth and in other States – that cut costs and/or improve the quality of service deliver.
- The Commonwealth demonstrates leadership in developing new technologies that improve current standards and regulations

Massachusetts enhances the competition of its regions by reducing costs impacting all businesses

- Employer health care costs grow at rates not exceeding the national average
- State government makes every effort to enhance the predictability of costs imposed on the private sector.
- Massachusetts prioritizes unemployment insurance reform.

Massachusetts offers a well-coordinated and effective response to terrorist attacks

- The Commonwealth’s transportation facilities earn the highest security ratings from appropriate federal agencies
- State government and the private sector collaborate to develop realistic disaster preparation and recovery plans that account for the capabilities and concerns of the private sector.